

EASTERN MICHAUD FLATS CONTAMINATION

IDAHO

EPA ID# IDD984666610

Last Update: April, 2002

**EPA Region 10
Power and Bannock
Counties
Pocatello**

**2nd Congressional District
Other Names: FMC Corporation
J. R. Simplot**

▼Site Description

The Eastern Michaud Flats (EMF) Superfund site covers 2,530 acres near Pocatello. Within the site boundaries are two adjacent phosphate ore processing facilities, the FMC Corporation and the J.R. Simplot Company, both of which are active facilities that have been in operation since the 1940s.

The FMC plant produces approximately 250 million pounds of elemental phosphorus per year from two million tons of shale, silica, and coke; the elemental phosphorus is sold and used in a variety of products from cleaning compounds to foods. Ore is shipped to the plant in railcars and stockpiled at the plant. The primary by-products from the production process are slag (stored on-site), ferrous-phosphate residuals, carbon monoxide and several aqueous streams (such as phossy water/solids, precipitator slurry, calciner water/solids, and industrial wastewater). Most of the aqueous streams are managed in lined surface impoundments some of which are subject to regulation under the federal Resource Conservation and Recovery Act.

The J.R. Simplot facility produces 12 principle products, including five grades of solid fertilizer and four grades of liquid fertilizers. The raw materials for their processes are phosphate ore (transported to the plant via a slurry pipeline from the Smoky Canyon Mine), sulfur, air and natural gas. The primary waste by-product from the Simplot plant is phosphogypsum, which is pumped as a thick slurry to large unlined stacks south of the processing plant. The plant also treats water from the various processes

which is nutrient rich and sold for irrigation and fertilizer.

In 1976, the Idaho Department of Health and Welfare conducted a groundwater monitoring study down gradient from the plants. The investigation showed elevated levels of arsenic, lead and cadmium above Federal Drinking Water Standards. Further sampling during the 1980s confirmed these results, and the site was listed on the National Priorities List on August 30, 1990.

The Michaud Flats are on the Snake River Plain and are bordered by the American Falls Reservoir, the Portneuf River, Rock Creek, and on the south by the foothills of the Deep Creek Mountains and Bannock Range. The Portneuf River, which is located 1/4 mile from the site, is used for fishing, recreation, and irrigation downstream from the site.

Site Responsibility: This site is being addressed through federal and potentially responsible parties' actions.

NPL Listing History	Dates
Proposed Date:	05/05/89
Final Date:	08/30/90
Deleted Date:	

▼Threats and Contaminants

Media Affected: [Groundwater](#), [Soil](#)

On-site shallow groundwater has been affected by releases from unlined waste management facilities at both FMC and Simplot. The primary contaminants include arsenic, chloride, fluoride, nitrate, selenium, sodium, and sulfate. Groundwater moves generally north-northeast underneath the facilities and discharges to springs and to the Portneuf River. Elevated orthophosphate levels, relative to regionally observed orthophosphate

concentrations, and relative to the pending Portneuf River Total Maximum Daily Load discharge standard for orthophosphate, discharges from groundwater into the Portneuf River. Off-site soils contain elevated levels of fluoride, radium-226, total phosphorus, zinc, and cadmium to the north/northwest of the facility as a result of airborne releases from plant processes, roads, storage areas, and wastewater ponds. Some of the on-site soils contain elevated levels of cadmium, chromium, copper, lead, nickel, silver, vanadium, zinc, radium-226, and fluoride.

▼ Cleanup Progress

Early Response Actions: In late 1993, in response to an EPA Action Memorandum, FMC began closure of Pond 8S, the last unlined pond in use at the facility. In 1991, under an Administrative Order, the potentially responsible parties (PRPs) began an investigation to determine the nature and extent of site contamination. The Remedial Investigation and Feasibility Study (RI/FS) was completed in April 1997, and a proposed plan for the cleanup was released for public comment on April 18, 1997. The Record of Decision was issued on June 8, 1998, and requires capping of contaminated soils, monitoring, and institutional controls. EPA is currently reevaluating the Record of Decision that was issued in 1998 based on comments received from the US Department of Justice, the Shoshone Bannock Tribes, the Idaho Department of Environmental Quality, and more recently from the Federal and State Total Maximum Daily Load (TMDL) programs.

▼Regional Contacts

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Information pertaining to this site is housed at the following location(s):

Idaho State University Library
Reference Section
850 South 9th Avenue
Pocatello, Idaho 83209
(208) 282-3152

Shoshone-Bannock Library
Tribal Business Center
Pima Drive and Bannock Avenue
Fort Hall, Idaho 83203
(208) 478-3882

EPA Region 10 Superfund Records Center
1200 Sixth Avenue, ECL-076 (7th Floor)
Seattle, WA 98101
(206) 553-4494